

REMARKS

The Examiner has acknowledged the claim for foreign priority and receipt of the priority documents.

Drawings

The Examiner objects to the drawings because they fail to show Fig. 7, which was mentioned in the specification. Applicants have amended the specification to delete all references to this Figure.

The Examiner also objects to the drawings because they allegedly do not show every feature of the invention. In response, Applicants have changed Fig. 1. A Request for Approval of Proposed Drawing Corrections with changes shown in red ink is filed with this Amendment. Applicants have also added the new reference numbers for the medium fixing member and the recorder to the specification.

The Examiner also objects to the form of the Abstract. Applicants have amended the Abstract.

Claims 1-5 are all of the pending claims. Claims 1 and 2 are independent claims. Claims 1-5 are amended slightly to clarify the scope of subject matter claimed without changing the scope of subject matter claimed.

Claim Rejections under 35 U.S.C. §§ 102/103

Claims 1 and 2 are rejected under 35 U.S.C. § 102(b) as being anticipated by Ohashi (JP 09-1666954). Claims 3-5 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Ohashi in view of Hashizume et al. (JP 57-18255). Applicants traverse these rejections.

Ohashi appears to teach an electrophotographic device in which two fans 50a and 50b provide a stream of air through the device (Fig. 1A and 1B). A humidifier is located near one of the fans, so that when the fans blow in one direction, the air is blown by the humidifier and it humidifies the device or if it is blown in the other direction, the humidified air is blown directly from the device and does not provide humidification (§ 0034-0036).

With respect to independent claims 1, the Examiner alleges that Ohashi has an air supply (fans 50a, 50b) that builds up positive pressure in the interior of the electrophotographic device. In fact, the fans 50a and 50b do not provide a positive pressure, but merely provide a flow of air through the electrophotographic device.

With respect to the claimed invention, keeping a positive air pressure within the recording device prevents dust from entering the device. This configuration, however, makes it difficult to stabilize the temperature and humidity (Specification page 3, lines 5-9). Thus, since there is a positive pressure within the recording apparatus, a device that changes the temperature or humidity accordingly is needed.

As such, Ohashi does not meet all of the recitations of claim 1. As such, Applicants request that the Examiner to withdraw the rejection. In addition, Applicants request that the Examiner withdraw the rejections of claims 3-5 because of their dependency from claim 1 and because Hashizume does not cure the deficiencies in Ohashi mentioned above.

With respect to claim 2, in addition to the arguments above with respect to claim 1, the device taught by Ohashi does not meet all of the recitations of claim 2. The humidifier in Ohashi is located near a suction/exhaust fan, but is not never located upstream of the fan that functions

AMENDMENT UNDER 37 C.F.R. § 1.111
Appln. No. 09/757,565

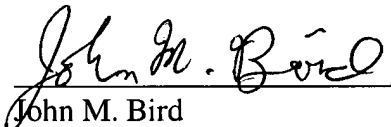
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as a suction fan since the humidifier is always located further within the device with respect to the fan. As such, the air always passes through the fan before reaching the humidifier no matter which fan is the suction and which fan is the exhaust. Thus, the location is never upstream of the air supply no matter which fan is used as an air supply, but is instead always downstream of the fan 50a or 50b. As such, applicants request that the Examiner withdraw the rejection of claim 2.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,


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APPENDIX
VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION:

The specification is changed as follows:

Please amend the third full paragraph of page 1 as follows:

~~Fig. 7 shows schematically the essential part of a conventional recording apparatus of the type contemplated by the invention. As shown, the~~A conventional recording apparatus comprises a rotating recording drum ~~100~~ (hereunder referred to as "recording drum") onto which is transported and fixed a recording medium ~~101~~ (an image-receiving sheet and a plurality of sensitive materials such as toner sheets exemplified by standard K (black), C (cyan), M (magenta) and Y (yellow) toner sheets and sheets of specific colors such as gold and silver that are commonly used in the printing industry) and the recording medium ~~101~~ is illuminated with laser light from a recording head ~~102~~ to record imagery, characters and other kinds of information.

Please amend the second paragraph of page 2 as follows:

If the temperature in the recording apparatus decreases, the recording energy of the laser light issued from the recording head ~~102~~ attenuates. Hence, the diameter of the beam spot projected from the recording head ~~102~~ onto the recording medium ~~101~~ becomes smaller than a specified value and, at the same time, the intensity of the laser light becomes insufficient to achieve satisfactory recording. As a result, the finished image becomes uneven and otherwise defective to cause serious effects, particularly on its quality if it is a color image. The same is true for the case where the temperature of the recording medium (hence, the sensitive material)

decreases and in order to perform recording within the same duration of time, more recording energy is necessary than when the temperature is high.

Please amend the fourth full paragraph of page 7 as follows:

The recording section 2 comprises a recording drum which corresponds to the medium fixing member 2a for fixing a recording medium on its surface and a recording head which corresponds to the ~~recording means~~ 2b for producing a record on the recording medium. The recording medium is transported and fixed onto the recording drum and illuminated with laser light from the recording head so that imagery, characters and other kinds of information are recorded on it.

IN THE CLAIMS:

The claims are amended as follows:

1. (Amended) A recording apparatus comprising:
a medium fixing member for fixing a recording medium to its surface;
a ~~recording means~~ for producing a record on said recording medium; and
an air supply ~~means~~ for supplying air into the apparatus to build up positive pressure in its interior;

wherein at least one member of the group consisting of a ~~dehumidifying means~~, a ~~humidifying means~~, a ~~heating means~~ and a ~~cooling means~~ is contained within said recording apparatus so that either temperature or humidity or both are held constant in said recording apparatus.

2. (Amended) A recording apparatus comprising:
a medium fixing member for fixing a recording medium to its surface;
a ~~recording means~~ for producing a record on said recording medium; and
an air supply ~~means~~ for supplying air into the apparatus to build up positive pressure in
its interior;

wherein at least one member of the group consisting of a ~~dehumidifying means~~, a
~~humidifying means~~, a ~~heating means~~ and a ~~cooling means~~ is located ~~at~~ upstream of ~~the~~
air supply port of said air supply ~~means~~ so that either temperature or humidity or both are held
constant in said recording apparatus.

3. The recording apparatus according to claim 1, wherein the at least one member of the
group consisting of the dehumidifier, the humidifier, the heater, and the cooler is the humidifier,
and said humidifying means is located in ~~the~~ feed path of said recording medium.

4. The recording apparatus according to claim 3 which further includes a humidifying
chamber and a humidifying air supply ~~means~~ for supplying air to said humidifying chamber, said
~~humidifying means~~ performing its function by a water-retaining material that is imbibed with
water and which is located within said humidifying chamber or between said humidifying air
supply ~~means~~ and said humidifying chamber.

5. The recording apparatus according to claim 3, wherein said humidifying means performs its function by a water-retaining roller that is brought into contact with or proximity to the feed path of the recording medium.

IN THE ABSTRACT OF DISCLOSURE:

The abstract is changed as follows:

A Recording apparatus ~~+~~ builds up positive pressure in its interior with air being supplied by ~~a means of fan 3~~. Filter 4 rejects any dust and dirt contained in the air so they will not enter the apparatus. Humidifier 5 has a water-imbibed water-retaining material in its interior and humidifies the interior of the recording apparatus ~~+~~ so that the internal humidity is always maintained at an optimum value. The recording apparatus ~~+~~ ensures that there will be no change of the internal humidity that would otherwise deteriorate the performance of the constituent members of the apparatus or reduce the sensitivity of the sensitive material in the recording medium and this contributes to preventing unevenness in the finished image. The recording apparatus is also free from the development of static charge in the areas of contact between the recording medium and the constituent members and from the subsequent occurrence of transport jam and failures in electronic components.